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THE EFFECT OF BEHAVIORAL CONTEXT ON SOME ASPECTS OF ADULT DISCIPLINARY PRACTICE AND AFFECT

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The Effect of Behavioral Context on Some Aspects of Adult Disciplinary Practice and Affect

a dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Philosophy in Psychology

by

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The dissertation of Judith Elaine Stevens is approved, and it is acceptable in quality and form for publication on microfilm.

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1971

TO BRETT

my slightly overactive child

from his slightly overactive mother

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ABSTRACT OF THE DISSERTATION

The Effect of Behavioral Context

on Some Aspects of Adult

Disciplinary Practice and Affect

by

Judith Elaine Stevens

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Professor O. Ivar Lovaas, Chairman

This study examines the effect of "behavioral context" on some aspects of adult disciplinary practice and affect toward a child. "Behavioral context" is defined as a general framework created by certain child characteristics, like activity level, within which a parent evaluates a child's specific behavior. Labeling a child "emotionally disturbed" is another way to create a behavioral context. Both the activity level of the child and labeling were systematically varied in this study.

Subjects were parents of elementary school children. These adults each saw one of six $8\frac{1}{2}$ minute video-taped films. In the films, one of two actors portrayed either an underactive, an average-active or an underactive child in a play situation with an adult. Adults were randomly assigned to one of the six films, then one half of the adults were informed that the child in the film had been diagnosed "emotionally disturbed."

Within each film, ten different 20 second sections of blank tape were inserted. Five blank sections were immediately preceded by a scene in which the child hits the adult in the film. Five blank sections were placed at points in the film where no such aggression occurred. The adults were asked to record two responses during these blank spaces, one to tell E how the adult would handle the child's behavior, and one to report how the adult felt toward the child.

These responses could be made by depressing one of eight keys on a button panel. The adult was asked to choose from one of five disciplinary responses (social reward, ignoring the child, removing the child's toys, mild corporal punishment or "no response") and one of three affect responses (positive, neutral or negative).

A 2x3x2 analysis of variance and a set of orthogonal comparisons were carried out on the data for the disciplinary response. A similar analysis was done for the affect data. A Pearson correlation coefficient (r) was computed to analyze the relationship between the two sets of data. Results showed that both activity level and labeling have significant effects on the adult's choice of disciplinary practice and his feelings toward the child. The Pearson r was highly significant.

The overactive and the underactive children are punished more severely and evoke more negative affect than the average-active child where the child is not labeled and does aggress. This result is discussed in terms of how deviation from the norm may affect parental behavior. If the child does not aggress and is not

labeled, the overactive child only tends to evoke more negative affect and more severe punishment.

In general, labeling produces more positive feelings and less severe punishment for the underactive or the overactive child. Labeling does not affect the data for the average-active child. Again, the importance of deviation from the norm is discussed. However, despite general changes produced by labeling, the child is still punished more severely than the other children if he is overactive. The overactive child is punished more severely even when he commits no specific aggressive act. This result is discussed in terms of "perceived aggression." Some implications for a program of parent education are outlined.

CHAPTER 1

INTRODUCTION

This study was designed to examine the possibility that certain characteristics of the child affect the attitudes and behavior of adults. In particular, we were interested in an adult's use of disciplinary practice and his feelings, or affect, toward the child.

Most current literature dealing with child development emphasizes the ways in which the behavior of the adult influences the personal and social development of the child. While it is impossible to deny the tremendous effect of a parent on a child, there is much evidence to indicate that the parent-child relationship is not a one-way street, but a complex interaction. This study looks at one small aspect of the child's possible contribution to that interaction.

It is proposed that certain child characteristics exert an influence on the nature and severity of the disciplinary practices an adult chooses in attempting to control the child's behavior. These characteristics may be manifest in the child's behavior in an obvious way, for example, how active the child appears to be. The characteristics may also be implied by catagorizing the child as may occur when the child is diagnosed "mentally ill," or "emotionally disturbed." These kinds of characteristics will be called "behavioral contexts." The first concern of this study, then, becomes whether "behavioral context"

is a determinant of an adult's response to a child's specific behaviors.

An adult's response to a child's behavior may be overt, as it is when he attempts to discipline the child, or it may be covert. Therefore, both what sort of discipline the adult chooses and how he feels toward the child was measured in order to know if we can manipulate both aspects of the adult's response toward the child by systematically varying behavioral context. Moreover, we are concerned with how these two aspects of an adult's response relate to each other. Can one aspect be predicted on the basis of the other?

Any discussion of disciplinary practices and the feelings that accompany them must consider punishment. Laboratory studies of the use of punishment with human subjects, especially children, are rare. Studies in which some characteristic of the child has been systematically varied and its effect on an adult noted are virtually nonexistant. These kinds of questions are usually approached through field studies on a cross section of a population. They almost always rely heavily on the use of questionaires and interviews and results are reported as correlations. The direction of effect in such a field study is, of course, impossible to ascertain. Occasionally, a longitudinal field study approach has been employed (Sears, et al., 1957). However, even with this kind of methodology, little can be said about the direction of effect because neither the child's behavior nor the parent's is systematically varied by the experimenter

The present study employs a procedure for examining the topic

of punishment and the parent-child interaction that affords the experimenter many of the controls available in the laboratory, yet does not pose the ethical questions that have led to the relegation of punishment research to the animal laboratory.

Disciplinary Practice

Activity Level as Behavioral Context

Most of the information we have about the use of discipline by parents comes from field studies such as those by Sears, Maccoby and Levin (1957), Bandura (1959), Hoffman (1960) and Glueck and Glueck (1950). These authors have dealt with such global issues as the relationship of punishment to the development of aggression, dependency or moral behavior. Their results usually are exceedingly complex and the variables involved often hopelessly confounded. Aside from the problems of complexity and confounding already noted, results are reported in terms of correlations. No statements can be made about the direction of any effect. High correlations have been reported between aggression, asocial behavior and the use of punishment by the parent (Bandura, 1959, Glueck and Glueck, 1950, Sears, Maccoby and Levin, 1957, Lefkowitz, et al., 1963). The usual assumption is that punishment somehow produces aggression or problem behavior in the child. We can as easily argue, however, that it is the aggressive behavior of the child that leads to punishment by the parent.

The traditional assumption, i.e., that the use of punishment results in aggression, can be derived from several popular

theoretical models. For instance, the frustration-aggression hypothesis predicts that when the parent uses punishment, he increases the child's frustration, and therefore, the child is more likely to aggress. Social learning theory supports this point of view by positing that the punitive parent may become a model of aggressive behavior for the child (Bandura and Walters, 1963).

These models are persuasive, and there is no intent to deny the influence of the parent on the child. We are, rather, trying to establish whether the child may add to the interaction. So let us assume for the moment that the correlation between parental punishment and child aggression is the reverse of what is usually assumed. Let us say that some aspect of the child's behavior leads to the use of punishment by the parent.

The possibility that the child's behavior has considerable influence on the parent's use of discipline has been discussed at length by Bell (1968). He suggests that children may show congenital differences in activity level, assertiveness, sensorimotor capacities and responsiveness to the social environment. A parent may find it necessary to use higher magnitude, perhaps more aggressive measures to control a child who is more active, more assertive, or less person-oriented. The parent may become more active and louder, use more intense forms of control.

This study is concerned with only one of the child characteristics identified by Bell, that is, the activity level of the child and its influence on adult attitude and control behaviors. We

are particularly interested in how activity level influences the adult's use of punishment.

There is some evidence that activity level, or a related characteristic, and the use of punishment are related in some important way. Glueck and Glueck (1962) found the use of punishment and extreme restlessness in the child to be strongly related. Bandura (1959) found a relationship between the use of physical punishment and resistance to demands on the part of the child. If we assume, as Bell suggests, that there are congenital differences between children in activity level and assertiveness, these studies may be seen as showing that such differences affect parental use of punishment.

In as much as there is so little direct evidence of activity level influencing the use of punishment, it was necessary to make a number of inferences on the basis of indirect evidence. We began to look for the reasons why a more active child might encourage and demand a more punitive interaction. There are several possible ways to look at the reasons for such an interaction. First, the parent may become frustrated and negative toward a child who when awake is constantly in motion. The Berkeley Growth Study (Bayley and Schafer, 1964) reports that calm infants were rated postively by the parent, while rapid, active infants were seen as a burden. Does the parent reject the active child? Bandura (1959) stated that the use of physical punishment is correlated with parental rejection.

A second way to look at the problem is that even if the parent

feels positively toward the child, the only apparent means of controlling the child is to be aggressive and punitive. Kagan, et al. (1964) report a strong relationship between the restlessness of the child and his cognitive impulsivity, i.e., his tendency to use little reflection or evaluation of alternative responses. So the parent may find it useless to talk with, reason with or remind the child. Kagan also shows that motor restlessness is related to a decreased ability to attend. This finding is reiterated by Schaefer and Bayley (1963). Again, this means that subtle forms of control like frowning, ignoring or reasoning have no effect.

Going a step further, Kagan, Pearson and Welch (1966) suggest that cognitive impulsivity may be due to an inability to effectively inhibit the urge to act long enough to reflect upon the response alternatives. The child decides quicker and makes more errors. So, the parent can not reason with the child, can not control him with subtle techniques and the child makes more errors. The child may not only demand more intense forms of control, but he may also require it more often. Kagan (1968) writes "the vigorous infant will probably get into more trouble and be punished more often.

Finally, a report by Schaffer (1966) suggests yet another reason why the interaction between the parent and the active child may become punitive. Schaffer demonstrated that the Developmental Quotients of active infants were less adversely affected by maternal deprivation than those of less active infants.

Ignoring the active child has little influence on his development. The parent may feel somewhat rejected too; the infant's development is less dependent upon the parent.

Thus, there are a number of reasons why activity level may result in negative parent-child relationships, but the empirical evidence is sparce. Many inferences are required and the most important of these is that the characteristics of the child can change the overt behavior of the parent. There is some support for this notion in the literature on child characteristics other than activity level.

For instance, Moss (1967) reports that crying releases maternal behavior, but male infants are less responsive to the parent's attempts to quiet the child. By three months, males are receiving less attention than the females. The child seems to have influenced the overt behavior of the parent. But differences in the way parents react to children of different sexes depend not only upon the characteristics of the child, but upon the ways in which society prescribes the role of the parent vis-à-vis the sex of the child.

A similar study by Yarrow (1961) obviates some of the problems created by social role concepts in studies of sex differences. Yarrow, concerned with the child's responsiveness to social stimulation, looked at two infants of the same age and sex placed in the same foster home. The more responsive, adaptable infant received more frequent and varied social stimulation from the same parental figure.

Finally, some studies of mentally retarded or organically damaged children have demonstrated that a very general characteristic of the child, such as deviation from the norm, has some effect on adult response patterns. Adults respond to mentally retarded children with more frequent but more redundant communication than that they use with children of more normal verbal ability (Siegel, 1963a, Spradlin and Rosenberg, 1964, Siegel and Harkins, 1963). Cook (1963) reported that the mothers of blind, deaf and mongoloid as well as cerebral palsied patients were increasingly authoritarian and demanding as the handicap of the child became more severe, as the child deviated further from the norm. Here is direct evidence that a child characteristic may affect parental disciplinary practice.

Labeling as Behavioral Context

Activity level is one kind of behavioral context. It may provide a general matrix within which parents respond to specific behaviors of the child. The labeling of child characteristics provides another kind of behavioral context, and the effect may be the same. This means that a label can become a determiner of parental disciplinary practice and affect too.

In 1964, Bell began to explore the possibility that labeling provides an important context for parent-child interactions. He suggested that many kinds of diagnoses have important, controlling effects on parental behavior. He recommended that the impact of child characteristics on the parent with and without labeling be studied.

Some attempts have been made to look at the ways in which labels may affect an adult's response toward a child. Siegal (1963b) tried to examine whether labeling a child "high" or "low" in verbal ability would affect an adult's attempt to interact with the child. Siegal was unable to demonstrate any effect, but notes that all of the children used in the study were actually of fairly low verbal ability and the adults may have seen the "high" label as inappropriate and therefore have disregarded any implications of the label for their own behavior.

Guskin (1962) was more successful in demonstrating labeling effects. His study also suggests a reason for Siegal's difficulties. Guskin found that adult responses to relevant adjective scales changed after a child was labeled "mentally retarded." However, these changes occurred only where the child displayed a certain number of physical cues to retardation. Guskin argues that too few or too many cues to subnormality decrease the effect of labeling. This effect is greatest where the behaviors of the stimulus person provide ambiguous cues. In Siegal's study all the children were of low ability. Perhaps there were too many cues to subnormality.

In the present study, the cue to subnormality is activity level. Activity level is an ambiguous characteristic. Large differences are found between normal children as well as between normal and abnormal children. In an abnormal population, activity level may vary as a function of a functional or an organic syndrome. We can, then, perhaps expect some effect from labeling in the present study, and the effect should vary depending upon

the number of cues to abnormality.

Two questions will be explored. Does the labeling of the child influence adult disciplinary practice? Does this influence vary depending on the number and nature of the cues displayed by the child? In other words, is the effect of labeling different for children of different activity levels?

Affect and Behavioral Context

We are also interested in the present study in how the affect, or the feelings, of the adult toward the child relate to the adult's use of disciplinary practice. Are they correlated? Can we predict one on the basis of the other? Very little research has been done in this area. Field studies have shown a general relationship between the use of punishment and rejection (Bandura, 1969). The same over-all correlation has been demonstrated to exist between warmth and the use of love withdrawal as a disciplinary technique (Sears, Maccoby and Levin, 1957). However, there appears to be no data on the correlation of affective responses with disciplinary practice at the time the child is disciplined.

We are interested too in how activity level and labeling influence adult feelings. Feeling tone, or affect, is another aspect of the adult's response to the child's behavior. Does behavioral context affect this aspect as well? Does context affect the adult's feelings and his use of discipline in the same kind of ways? We have suggested that the active child is seen in a more negative light, as a burden, perhaps a frustration, and the quiet child is seen more positively. Do these feelings

correlate in some important way with the way the adult disciplines the child? How does labeling change the adult's feelings, if at all, and does any change in affect correspond to a change in discipline? It is hoped that the data from the present study will begin to answer some of these questions.

CHAPTER 2

METHOD AND PROCEDURE

Overview

Sixty parents (Adults) of children between the ages of seven and twelve were asked to view a short video-tape recording of an adult and a child interacting in a play situation. Each of the 60 adults saw one of six different sequences. In two of these sequences the child was overactive. In two of the sequences the child was average-active and in two the child was underactive.

The tapes or films were presented on a closed circuit television moniter. During each film, the screen on the moniter went blank for about 20 seconds on each of 10 occasions. The adult saw the child hit the adult in the sequence immediately prior to five of these blank spots. The adult had been instructed that during the blank he was to record how he might handle the behavior he had just seen if he were the adult in the film. The adult was to record his response by pressing one of five buttons on a panel directly in front of him. These buttons allowed five alternative disciplinary responses ranging from positive social reinforcement to mild corporal punishment.

The adults were also asked to record their feelings toward the child during each of the blank spots in the film. They could choose to report negative, neutral or positive feelings by pressing one of three buttons on the button panel.

The sequences that the adults saw were recorded by E on video-tape.

The E had instructed two actors as to how to portray differences in activity levels. Once these performances were recorded on video-tape, the effect of activity level on the adult's use of discipline and on the adult's feelings toward the child could be examined by looking at the way adults reacted to different films. The E was also interested in the effect of a diagnosis like "emotionally disturbed" on the use of discipline and affect. Therefore, one half of the 60 adults were told that the child they were going to see in the film had been diagnosed "emotionally disturbed."

Subjects

All 60 adults were parents of children enrolled at University Elementary School at the University of California, Los Angeles. All were from the middle and upper class socio-economic groups. There were three negroes and six persons of oriental descent. The sample was approximately 30% Jewish and included 57 women and 3 men.

Stimulus Materials

Stimulus materials consisted of six video-taped sequences about 8½ minutes long. In one of these sequences, an actor played an overactive child, in one an underactive child, and in another, an average-active child. These three sequences were duplicated by a second actor, thus making six sequences in all, two of each activity level.

The tapes were recorded on a General Electric television recording system ½ inch video-tape recording deck using a General

Electric closed circuit camera model 500. The system is produced for General Electric by Sony Corporation. All sequences were taped on 3M brand ½ inch video-tape.

Two adult acters, one male and one female, 20 and 23 years of age, respectively, played the role of the child in all six sequences. These acters were chosen because they were small and looked young. They were dressed as young boys and seated in child-sized chairs in front of a large table. They were instructed by E in the simulation of all three activity levels.

Two acters were used to insure that the results of the study would not be ultimately dependent upon features peculiar to one acter. Subjects were randomly assigned to an acter and an activity level. The same tapes were used for adults who were told that the child was "emotionally disturbed" and those who were not.

During the course of each tape sequence, an adult, seated next to the child, attempted to join the child in playing with a number of toys E had placed on the table. The adult acter was seated on a full-sized chair atop two large telephone books. The same acter played the part of the adult in all six films.

The adult in the film was instructed to ask the child the question "May I play too?" at several points in the film. The child was instructed to respond to this question by telling the adult "No, go away," or "Leave me alone." The child then struck the adult on the arm and pushed him away. Within each of the six films, five such instances of interpersonal aggression were

enacted. These incidents occurred at the same points in time in all six films (approximately 30, 90, 180 and 290 seconds into the film before the addition of the blank spaces). After each instance of interpersonal aggression, 20 seconds of blank tape was inserted into the film to permit the adults to respond to the aggression. A second set of five blank spaces were placed in the film at points during which no aggression against the adult occurred (at approximately 60, 120, 145, 230 and 260 seconds). At these last five points, the child was seated, playing by himself, with the cars, trucks and blocks on the table. The adult in the film was simply observing the child play. These five blanks were inserted to permit E to evaluate the adult's response to the child when he was committing no specific transgression. With the ten blank spaces inserted, the running time of each sequence was approximately 8½ minutes.

In the segments depicting an overactive child, the actor playing the child was instructed to play with two trucks at a time, often moving them erratically, in spurts interrupted by piling all the cars and trucks up, shifting positions, getting up and sitting down, moving the chair around, etc. In the segments depicting an average-active child, the actor was asked to sit and play quietly with the trucks and cars, moving around only once or twice during the segment. Finally, in the segments showing an underactive child, the actor was directed to play very slowly, using one object at a time, often quitting altogether, staring out the window, never moving or getting up from his seat. Dimensions of difference

between activity levels are, in part, based upon those suggested in a study of heredity and activity level by Scarr (1966).

The actor playing the role of the adult was instructed to behave the same way in all of the sequences. He was to sit and passively observe the play activity of the child except for those instances where he was to ask the child if he could play.

Design

A design utilizing six groups, each composed of 10 adults was employed. Each group viewed a film depicting one of three activity levels under one of two labeling conditions, as indicated in Table 1. In one labeling condition, the adult was told that the child was "emotionally disturbed," in the other, he was given no diagnostic information. With each group, five adults viewed one actor in the child's role, five adults in the group saw the other actor. Adults were assigned ramdomly to an activity level, an actor and a labeling condition. There was one restriction to the randomization. No more than one male was assigned to any group.

Table 1

Design of the Experiment

	Activity Level		
	Overactive	Average-active	Underactive
"Disturbed"	Group 1	Group 2	Group 3
No Label	Group 4	Group 5	Group 6

N=60 n=10

Procedure

The films were viewed in a 12' by 14' room in a bungalow adjoining the main school building at University Elementary. The adult was seated at a table facing a General Electric closed circuit teltvision monitor, model 4TH31B1.

On the table immediately in front of the adult was an eight button panel. Depressions of the keys were automatically recorded on a Commercial Controls Corporation model 2 tape punch. The tape punch was located in an identical adjoining room. The General Electric video-tape deck was located on a table directly behind the television in the room with the adult.

E gave instructions to the adult, started the video-tape equipment, and then left the room, remaining in the adjoining room throughout the film. It had been indicated to the adult that an intercom between the two rooms permitted E to determine when a given sequence ended. The E then reentered the room to stop the video-tape. Since all responses by the adult were non-verbal, this procedure allowed maximum privacy.

The adult was told that he was about to participate in a study of child management. He was told that he would see taped sequences of a child interacting with an adult in a play situation, (at this point half of the adults were informed that the child they were about to see had been diagnosed "emotionally disturbed.") It was then explained that the television monitor would go blank for about 20 seconds on 10 different occasions during the course of the film. The adult was told that during these blank spots he was

to record how he might choose to handle the behavior he had just seen if he were the adult in the film. He was also instructed to record how he was feeling about the child as he responded to the child's behavior.

It was emphasized that the adult's responses were non-verbal, could not be seen or heard by anyone, and furthermore, that his name would not be recorded on any of the data. The adult was asked to respond as quickly and honestly as possible as soon as the blank space appeared. All instructions were read and questions were answered by paraphrase of the text. Complete instructions for both the labeled and the non-labeled conditions may be found in Appendix A.

After the introductory remarks, the meaning of a response on each of the keys on the panel was explained to the adult as follows:

a) Button #1:: A response on key #1 means you would reward the child by hugging, smiling, kissing, a positive verbalization such as "Good boy," "umhuh," "That's right," or some other form of approval or affection.

b) Button #2: A response on key #2 may be seen as ignoring or withdrawing from the child, making no verbal responses, perhaps turning around or walking away from the child.

c) Button #3: A response on this key means you would take the toys away from the child, perhaps putting them away completely. You might make the child sit quietly in his chair for a few minutes and not allow him to play with his toys. You would not

talk to him during this period or interact in any way. However, this does not mean you would not first offer a brief explanation.

d) Button #4: A response on this key means you would verbally reprimand or scold the child, using phrases like "bad boy," "Don't do that," "Stop it," "That's not nice," etc.

e) Button #5: A response on this key means you would take measures like shaking, spanking or slapping the child. That is, you would use some mild form of physical punishment.

f) The button marked "plus": A response on this key means you are feeling positively toward the child. The child has pleased you; you like him; you are happy with him.

g) The button marked "zero": This means the child has made you feel neither negatively or positively toward him. You are feeling neutral.

h) The button marked "minus": A response on this key means the child has made you feel negatively toward him. You do not like at this point; he has upset you. You are not pleased with him.

Below each key a short phrase was written on a piece of tape to help the adult remember the meaning of a response, e.g., "+," "0," "smile, hug, kiss," "walk away," "remove toys," etc.

The adult was told he should try to respond as he would if he were the adult in the film. He was also told to assume that he had complete responsibility for the child. Then it was explained that if he felt that none of the responses available to him was appropriate, but that the best course of action would be to continue interacting with the child as though nothing had

happened, he could choose not to use any of the buttons for disciplinary practice. In such a case, he was told he should simply record how he was feeling toward the child during the appropriate blank space. The E then asked the adult to practice using the button panel. The E described different situations that might be encountered by the adult while viewing the film. The adult was asked to press the buttons indicated by the description. For instance, "You are feeling very negatively toward the child and decide to slap him." This procedure was repeated five times. Five of the 15 possible combinations of overt response and affect response were chosen at random for each adult. A complete list of these combinations appears in Appendix A.

Finally, the adult was informed that the behavior he would see on the film could be considered "typical" of that child. In other words, the adult was told that the child was very likely to behave as he would on the film in any similar situation.

After the adult had seen the film, E reentered the room in which the adult was seated, and asked the adult to rank each of the available disciplinary responses as to severity. The E requested the adult to list the number of the key designating a given response on a sheet of paper. The first number the adult listed was to identify the practice he considered least severe, and the last number identified the practice he considered most severe. Each key had to be ranked.

The adult's responses on the keys are the dependent variables

in this study. Since these responses are not independent, they were treated as lying along two continua, one dealing with affect and one with overt response. The continua were seen as representative of aversiveness, from least to most aversive. The E was then dealing with two dependent variables, aversiveness of disciplinary practice and aversiveness of affect. Reward was given a numerical value of +1 on the disciplinary scale, ignoring, -1, removing toys, -2, etc. Positive affect was valued at +1 on the affect aversiveness scale, neutral affect at 0 and negative affect at -1. If the adult made no disciplinary response, the value assigned was 0.

Preliminary Data

Three kinds of data were collected before begining to analyize the data from the major study. One set of data was used to examine whether naive adults would, in fact, be able to perceive differences in activity level between films designed to portray such differences. The second set was used to check on the credibility of the adult in the child's role. These two sets were collected before the adults in the major portion of the study saw the film. The final set of data was used to check on the order of severity E had assumed in assigning numerical values to represent how severe each of the disciplinary practices might be.

Our first task was to establish whether the three activity levels were descriminably different. Six adults, not in the study proper, were asked to view and rate the finished tape sequences. Since we were also interested in whether the adults

playing children actually looked like children; therefore, these six adults were also asked to guess the age of the children they saw. All six of the adults were women. All were college educated. Four of the six were parents. A Latin Square design was used to assign the adults to the films. Each adult viewed all six films, but each saw them in a different order.

These adults were told that they would see six films, three of one child, three of another. The E told them that each film was recorded on a different day. The E said she was particularly interested in any differences the adult might find in the behavior of a particular child on different days.

The adult was given a five point rating scale. On the scale, five attributes were listed, intelligence, cooperation, activity level, honesty, attractiveness, aggressiveness and cheerfulness. The scale ranged from -2 (called "not at all") to +2 (called "very"). The scale allowed a neutral response valued "0" and called "average." Each adult was asked to rate the child on each attribute using the scale. If the adult had no opinion about how to evaluate a child on a given attribute, she was told to leave the appropriate space blank. No adult elected to leave any blank spaces. Finally, the adult was asked to guess the child's age.

The scale was left in front of the adult during all of the films. After each film, the adult rated the behavior of the child on that film. Most of the adults waited until they had seen all of the films of one child before trying to estimate the child's age.

The numerical value of the ratings for each attribute were used by E to evaluate the films. For each film, the sum of the values given by all the adults for a particular attribute was obtained. For example, if all the adults had rated the child in film #1 as "very" intelligent (+2), the summed ratings would equal +12. The sum of the ratings on any attribute may range from -12 to +12.

A 2x3 analysis of variance was performed on the data for each attribute. In other words, one analysis of variance was done on the ratings of intelligence, one on the ratings of cooperation, another on activity level, etc. In each analysis the A variable was the actor and the B variable was the activity level the actor was supposed to be portraying. This means that if the main effect of the A variable was significant, the adults had rated one actor differently from the other on a particular attribute. For example, if the A effect was significant for intelligence, one actor might have been perceived as portraying a child who was more intelligent than the child played by the second actor. Significant A main effects were undesirable. We wanted the two actors to look as similar as possible on all seven attributes.

If the main effect for the B variable was significant, the adults had rated films depicting different activity levels differently. The ideal result would have been for the B variables in the analysis of activity level as an attribute to be significant especially if no other B variable was significant for any other attribute. This would mean that the only difference the adults could detect between any of the films was activity level.

Finally, it was possible for a significant AB interaction to show up in any one of the seven analyses. This would have meant that the way the adult's ratings were affected by the activity level we were trying to portray depended upon which actor the adult had seen. AB interactions were also undesirable.

The actual results were not completely ideal, but they were satisfactory. There were 14 main effects in all, an A effect and a B effect from each of seven analyses. In addition, there were seven possible AB interactions. In all, there were 21 possible significant effects. Of these 21, only three achieved significance, and all three were B variables.

In none of the seven analyses was an A effect or an interaction significant. This means that the adults saw no significant differences between the actors on any of the seven attributes. It also means that differences in the activity level we were trying to portray affected the adults the same way regardless of which actor they saw.

The three analyses of variance in which significant B effects appeared are presented in Tables 2, 3 and 4. Table 2 presents the data for activity level ratings. This was the critical attribute. The significance of the B variable here means that the adults did perceive the differences in activity level that the actors had tried to convey. The raw data show that they had rated the overactive child as the most active, the underactive child as the least active, and the average-active child as falling between the two extremes.

Table 3 presents the data for the ratings of aggression. The

TABLE 2

Analysis of Variance
Activity Level Ratings

Source	df	F
Between Subjects	11	
A	1	0
Subjects within groups [error (between)]	10	
Within Subjects	24	
B	2	36.69**
AB	2	0.34
BxSubjects within groups [error (within)]	20	

TABLE 3

Analysis of Variance
Ratings of Aggression

Source	df	F
Between Subjects	11	
A	1	0
Subjects within groups [error (between)]	10	
Within Subjects	24	
B	2	26.73**
AB	2	1.12
BxSubjects within groups [error (within)]	20	

*p < .05
**p < .01

TABLE 4

Analysis of Variance
Ratings of Cheerfulness

Source	df	F
Between Subjects	11	
A	1	0.16
Subjects within groups [error (between)]	10	
Within Subjects	24	
B	2	9.83**
AB	2	2.95
BxSubjects within groups [error (within)]	20	

*p < .05

**p < .01

significance of the B variable means the perceived differences in aggression between the overactive child, the average-active child and the underactive child. The raw data show that they had rated the overactive child as the most aggressive, the underactive child as the least aggressive and the average-active child, again, as falling between the two extremes.

Finally, Table 4, presents the data for ratings of "cheerfulness." The significant B variable here means, again, that the adults perceived differences between the overactive, average-active and underactive children in cheerfulness. However, the raw data suggest that the direction of the effect for cheerfulness is somewhat different than that for activity level or aggressiveness. The overactive child was seen as the least cheerful, and the average-active child was seen as the most cheerful. In this case, the underactive child fell in the middle.

Even though these results were not totally ideal, we went ahead with the major study using the same tapes. The absence of significant A effects and the lack of significant AB interactions was most encouraging. The significance of the B effect for activity level was a critical factor in the decision to use the same films. Some thoughts on the impact of the significant B effects for aggression and cheerfulness on the results of the major study will be presented in later discussion.

The second set of preliminary data was the age each of the adults estimated for the children they saw in the films. The average estimated age of the first child was 11.2 years old.

One adult saw this child as only four years old, and no one guessed he was over 14. The second child was estimated to be 10 years old. No one guessed the second child was older than 12. When we made the film, part of the child's face was covered and shaded by a visored cap, and it was difficult to distinguish facial features. The camera we used did not give sharply detailed pictures. These factors probably made the adults depend more upon the child's apparent size and behavior in judging his age.

After seeing all the films, the adults were told that the "children" they had just seen were actually adults. Everyone acted genuinely suprised. No adult reported any suspicion that the "child" was an adult. Everyone believed both children to be boys. No adult reported suspecting that one actor was a female, even after being informed that this was the case.

The final set of preliminary data was actually taken during the major study. We wanted to know if the adults would rank the severity of the five disciplinary practices the same way E had. As noted earlier, after the adults had seen the film, they ranked each of the disciplinary practices. They were asked to rank the one they considered the least severe as #1, and the practice they considered the most severe as #5. They were to rank all five practices.

E averaged the ranks assigned to each practice after all adults had completed this task. The order of severity suggested by the average rank order assigned by the adults was the same order E had assumed. The numerical value of each practice (+1, -1, -2, etc.)

was assigned on the basis of this rank order.

CHAPTER 3

RESULTS

Overview of the Results

The large number of conditions employed in this experiment make it difficult to summarize these results in any simple manner. In as much as the two major topics are the disciplinary and affect measures, these will be dealt with first. Under each of these major topics, we will begin by talking about what happens before the child is called "disturbed," then what happens after the child is so labeled. Finally, we will have to point out as we go along whether the data being discussed were taken after the child had aggressed or after he had not aggressed. With this order in mind, let us briefly review the data for each measure and then take up a more detailed analysis.

Disciplinary Practice

Analysis of variance indicated that the activity level of the child had a significant influence on the adult's choice of disciplinary measure. So did the labeling condition. However, the effect of activity level was different when the child was labeled "disturbed," than when he was not so labeled.

A series of orthogonal comparisons was carried out on the data. These showed that when the child was not labeled "disturbed" and did aggress, both the overactive and the underactive children were punished significantly more severely than the average-active child. If the child did not aggress, the data show only the

overactive child was punished more severely than the average-active child. The underactive child and the average-active child were treated alike.

When the child was called "emotionally disturbed" and does aggress, the adults were less severe with the overactive and the underactive children than they had been when the child was not labeled and did aggress.

Finally, when the case where the child was called "disturbed" and did not aggress is compared with the case where the child was not labeled and did not aggress, we find that the adult chose significantly less severe practices for the overactive child when the child was called "disturbed" than when he was not. However, even in the case where the overactive child was called "disturbed" and did not aggress, the adults continued to punish him more often than the underactive or the average-active child.

Affect

Again, analysis of variance showed that the activity level of the child influenced how the adult felt toward the child. So did the labeling condition. The effect of activity level was slightly different when the child was labeled "disturbed" than when he was not. However, orthogonal comparisons indicated that the differences were not as large as those observed for the disciplinary measure.

The Pearson correlation coefficient (r) showed that the adult's actions toward the child were correlated with his choice of discipline. For this data, $r=.60$ ($p<.01$)

Orthogonal comparisons indicate that if the child was not called "disturbed" and did engage in aggression, the adults had more negative feelings for the overactive and underactive children than for the average-active child. If the child was not labeled and did not aggress, the adult felt more negative toward the overactive child than the average-active child. The adult also had more negative feelings toward the underactive child than the average-active child in this case.

If the child was called "disturbed" and did aggress, the adults felt less negatively toward the overactive and underactive children than they had before the children were labeled. Moreover, they felt the same way about the average-active child whether or not he was called "disturbed." Labeling the child resulted in less negative feelings toward the overactive child, but the adults still felt more negatively toward him than toward the other children.

If the child was labeled "disturbed" and did not aggress, the adults felt less negative toward the underactive child than they had when he was not labeled and did not aggress. The adult felt the same about the overactive and average-active children whether or not they were labeled in the case where they did not aggress.

In general, regardless of activity level, the children evoked less negative affect when they did not engage in interpersonal aggression than when they did.

Procedure for Data Transformation

Sum Scores

Each adult made 20 responses, 5 after seeing the child hit the

adult in the film, and 5 at other points in the film. Each response was two-fold, a choice of disciplinary practice and a report of subjective feelings toward the child. Responses made after viewing the child engaging in interpersonal aggression occurred will be called, simply, "aggression" responses. Responses made at points in the film in which no interpersonal aggression occurred will be called "no aggression" responses. Choice of disciplinary practice will be called the "disciplinary measure" and the report of the adult's feelings will be referred to as the "affect measure."

The 20 numerical values obtained from each adult were first summed by groups of five. This procedure resulted in four "sum scores" for each adult.

1) Sum of the values of the five "aggression" disciplinary responses (the five responses made after viewing the child hit the adult in the film).

2) Sum of the values of the five "no aggression" responses (the five responses made at points in the film where the child did not engage in interpersonal aggression).

3) Sum of the values of the five "aggression" affect responses.

4) Sum of the values of the five "no aggression" affect responses.

A sum score for the disciplinary measure may range from +5 (the adult chooses key #1, indicating positive social reinforcement five times) to -20 (the adult chooses the key indicating spanking or slapping five times). In fact, the range was +5 to

-15. No adult chose to spank the child at any point. A sum score for the affect measure may range from +5 (the adult reported positive affect five times) to -5 (the adult reported negative affect five times). The full range of the affect sum score was utilized.

These four sum scores served as the basic data points for the analysis of variance and orthogonal comparisons to be reported. The average sum score for each condition appears graphically in sections of this paper which present the orthogonal comparisons.

The Disciplinary Measure

Analysis of Variance of Disciplinary Scores

A 2x3x2 analysis of variance design was used for the disciplinary measure. The A variable was labeling versus no labeling. The B variable was three levels of activity and the C variable was aggression versus no aggression.

Table 5 presents a summary of this analysis. All main effects are significant. This means that activity level, labeling condition and aggression versus no aggression each have a significant effect on the dependent variable, i.e., disciplinary practice. In as much as the C variable was not involved in any significant interaction, we can say that, in general, data taken after the adult had seen no aggression reflect less severe use of discipline than data for periods preceded by interpersonal aggression.

The presence of a significant AB interaction, as indicated by Table 5, makes it more difficult to summarize the effect of

TABLE 5

Analysis of Variance
Disciplinary Measure

Source	df	F
Between Subjects	59	
A	1	67.438**
B	2	116.226**
AB	2	10.134**
Subjects within groups [error (between)]	54	
Within Subjects	60	
C	1	75.104**
AC	1	0.0363
BC	2	2.359
ABC	2	1.672
CxSubjects within groups [error (within)]	54	

*p< .05
**p< .01

activity level and labeling on the dependent variable. The AB interaction means the effect of activity level on the disciplinary measure is not the same for different labeling conditions. In other words, if the child was called "disturbed" the adult reacted to the activity level of the child differently than if the child was not called "disturbed."

According to Cox (1958), averaging over levels of one factor gives limited information when interactions exist. In this instance, the main effect of A gives little idea of the variation in A for individual levels of B. We can not discuss the main effects of activity level and labeling meaningfully because we can not predict the effect of activity level within a labeling condition given only knowledge of the main effects. Therefore, the data for activity level and labeling condition will be presented graphically and interpreted by use of orthogonal comparisons, as explained below.

Orthogonal Comparisons

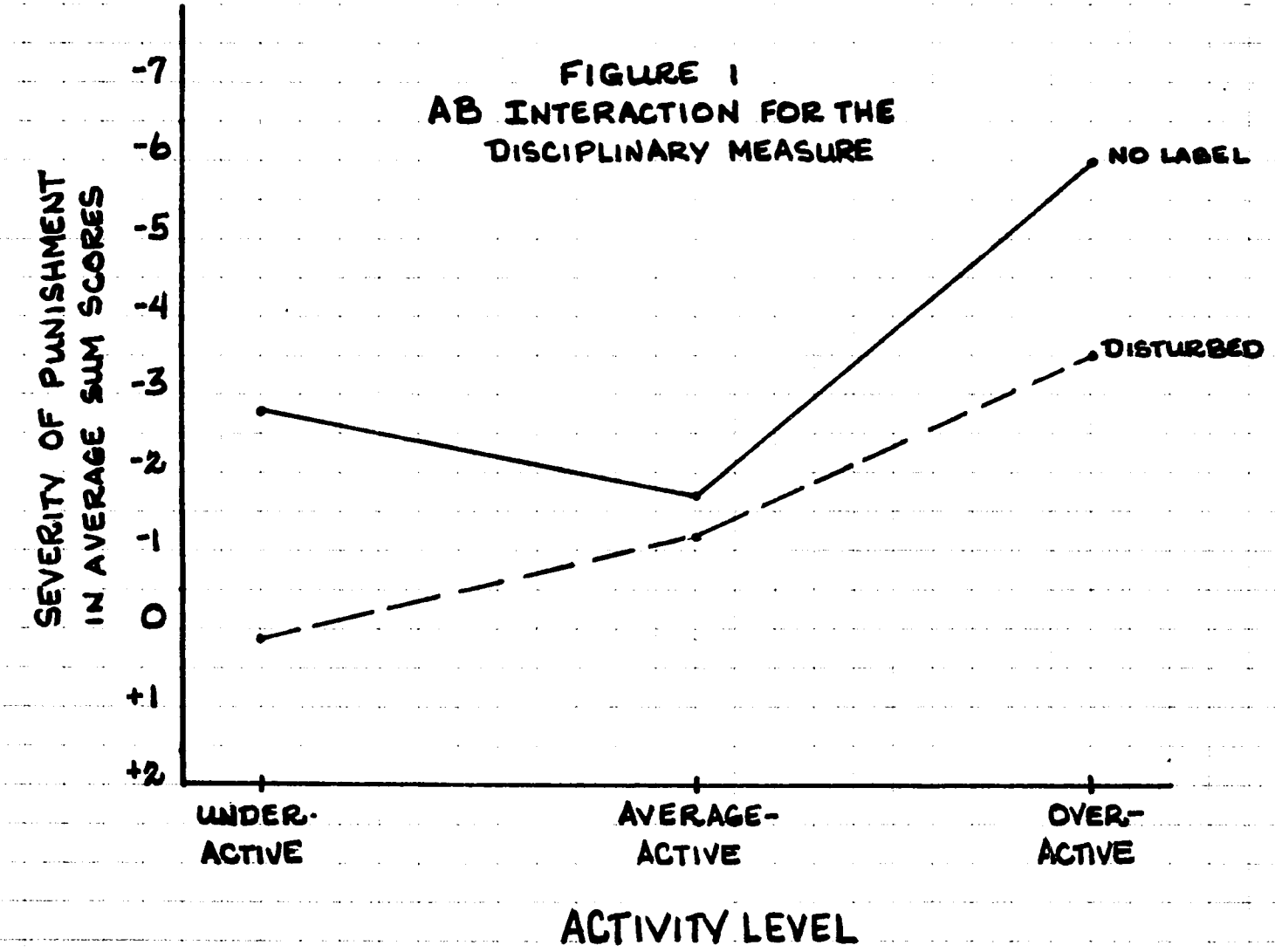
To show that the main effects examined in an analysis of variance are significant is not to say that every mean differs from every other mean. Significant main effects merely indicate the mean value over levels for any one factor are not all equal to the same value. Orthogonal comparisons allow E to determine which pairs of means differ significantly from each other. This permits more specific assessment of the influence of the interrelations of the main variables where significant interactions exist.

We can describe the AB interaction graphically, by averaging over levels of C, as presented in Figure 1. As the negative values on the ordinate of Figure 1 increase, increasingly severe punishment is indicated. Increased "severity" in this report shall be defined as increased frequency in the use of a negatively valued practice and/or use of a practice assigned a greater negative value. There are, then, two possible ways to arrive at a given sum score. For example, a sum score of -4 could indicate that the average adult chose to take the child's toys away in two of the possible 10 response periods, or that the average adult chose to ignore the child for 4 of the possible 10 response periods. Positive values on the ordinate indicate the use of reward more frequently than punishment during a given condition.

"No label" refers to the top line in Figure 1 and shows the average sum score for each activity level where the child has not been labeled and we have collapsed over the C variable. In other words, we have averaged the scores for sequences where no interpersonal aggression occurred and those where aggression did occur. "Disturbed" refers to the scores for each activity level where the child has been labeled and we have collapsed over the C variable.

Figure 1, then, graphically describes the AB interaction. It is also possible to use the method of orthogonal comparisons to examine data more closely where interactions exist, and where they do not exist, provided that the comparisons were planned in advance of the actual analysis. Such comparisons allow us to glean more information about the variations between means, even

FIGURE 1
AB INTERACTION FOR THE
DISCIPLINARY MEASURE

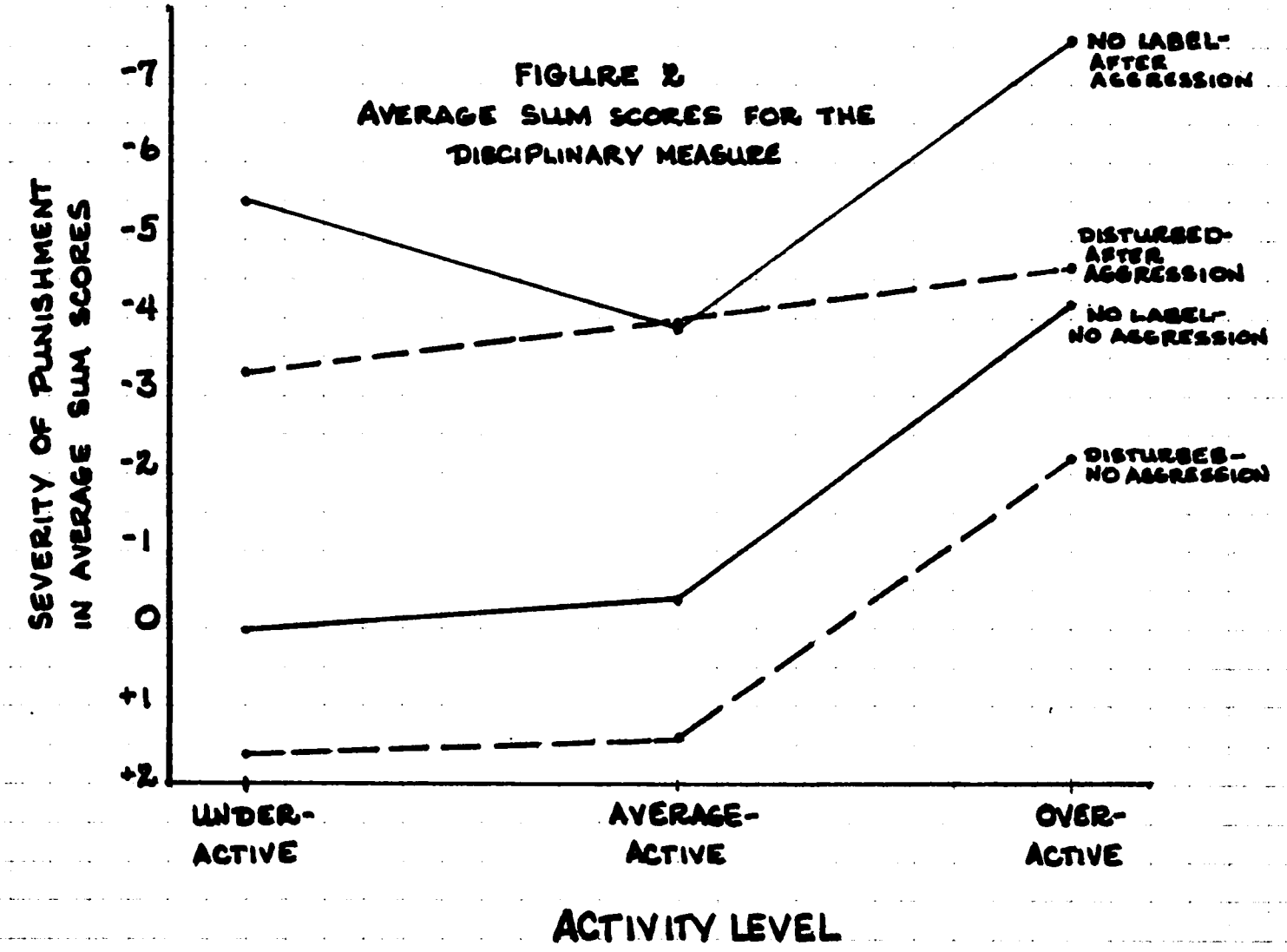


though an overall interaction may not be significant. We felt it would be useful to look at the effect of activity level and labeling after aggression separately from the effect after no aggression. We made this decision prior to analysis and discovery that the three-way interaction was not significant. Therefore, the major portion of the results section will be organized in such a way as to allow us to make point-by-point comparisons, rather than collapsing over any major variable.

A set of orthogonal comparisons was compiled for the disciplinary measure. The significance level chosen was .05. To help the reader interpret the meaning of these comparisons, the data for the disciplinary measure are presented graphically in Figure 2.

"No label-after aggression" refers to the top line in Figure 2 and shows the average sum score for each activity level where the child has not been labeled and the adult had seen the child engage in interpersonal aggression. "Disturbed-after aggression" refers to the scores for each activity level where the child has engaged in interpersonal aggression and has been labeled "emotionally disturbed." "No label-no aggression" refers to sum scores for each activity level where the child has not been labeled and has not engaged in interpersonal aggression. "Disturbed-no aggression" refers to sum scores for activity levels after the child has been labeled "emotionally disturbed" and where the child did not aggress. Numerical data giving each of these means and their standard deviations may be found in Appendix B.

FIGURE 2
AVERAGE SUM SCORES FOR THE DISCIPLINARY MEASURE



Comparisons involving "No label-after aggression" and "Disturbed-after aggression."

Figure 2 suggests that if the children are not called "disturbed" and do aggress, it is the overactive child who evokes the most severe punishment. In this case, the average-active child evokes the least severe punishment. Orthogonal comparisons indicate that data for the overactive child, the average-active child and the underactive child are significantly different from one another where the child is not labeled and does aggress. In other words, the data for the overactive child differs from both that for the underactive and the average-active child, and the data for the underactive child differs from that for the average-active child.

If the child is called "disturbed" and does aggress, Figure 2 suggests that differences in activity level no longer affect the disciplinary measure. Orthogonal comparisons indicate that the data for the overactive child, the underactive child and the average-active child are statistically equal where the child is labeled and does aggress.

Now, let us compare, point by point, the case where the child is not called "disturbed" and aggresses with the case where the child is called "disturbed" and aggresses. We find that the disciplinary responses the adult chooses are less severe for the overactive and underactive children after the child has been labeled, even though the child is still aggressing. However, the average-active child does not receive less severe treatment after he has been called "disturbed." Apparently, there must be

some noticeable deviation from the norm before calling the child "disturbed" has an effect on the reactions of the adults.

Comparisons involving data taken after no aggression.

If we examine what happens to the children when they have not engaged in any interpersonal aggression, we find that the effects of activity level and labeling are somewhat less complex than they were where the children had aggressed even though the three-way interaction was not significant. If the child does not aggress, regardless of whether the child is called "disturbed" or not, severity of punishment is greater only for the overactive child. In other words, when the child is not called "disturbed" and does not aggress, the data for the underactive child and the average-active child do not differ, but the data for the overactive child differs from both of the other children. The same is true when the child is labeled and does not aggress.

The main effect of the C variable (aggression) is apparent if we compare the combined means of the two curves where the child does not aggress with the two where the child does aggress. Each point in the data for instances where the child aggresses differs from the corresponding point in the data for instances where the child does not aggress.

The Affect Measure

Correlation Between Disciplinary and Affect Measures

A Pearson coefficient of correlation (r) was obtained as a first step in analyzing the relationship between the disciplinary

and affect measures. A positive relationship was predicted for all scores regardless of condition. Each disciplinary sum score was paired with the corresponding affect sum score, i.e., the disciplinary sum score for the overactive child where the child was not labeled and did aggress was paired with the affect sum score for the overactive child where the child was not labeled and did aggress. The disciplinary sum score for the underactive child where the child was not labeled and did aggress was paired with the affect sum score for the underactive child where the child was not labeled and did aggress, etc. The sum scores for each adult were paired in this manner yielding 120 pairs of sum scores that correlated $r=.60$ ($p<.01$).

The affect scores, then, appeared to vary in a pattern similar to the disciplinary measure. This much information tells us that if the adult is feeling very negatively toward the child he is also punishing less severely. It could be said that the adult is acting on his feelings, though, of course, we can not specify the direction of the effect. This very general level of analysis tells us very little, however. Therefore, an analysis similar to that carried out on the disciplinary measure was undertaken.

Analysis of Variance of Affect Scores

A 2x3x2 analysis of variance design was also used for data in which affective response was the dependent variable. Again, the A variable was labeling condition and the B variable was the three levels of activity. The C variable was aggression versus

no aggression.

Table 6 presents a summary of this analysis. All main effects are significant, however, the AB interaction was not significant. As was true of the disciplinary measure, the fact that all main effects were significant means that activity level, labeling condition and aggression versus no aggression each have a significant effect on the dependent variable, i.e., affective responses. Once again, we will discuss the effect of the C variable first as it is the simplest. The effect of the C variable was the same as the effect observed for disciplinary measure. Substantially less negative affect was reported during periods preceded by no aggression than during periods preceded by interpersonal aggression.

Table 6 shows that the AB interaction was not significant. However, a brief perusal of the data as presented graphically in Figure 3 suggests that merely summarizing the main effect present in the data may again not be an adequate approach. The more specific approach of orthogonal comparisons seemed likely to yield information important to the interpretation of the disciplinary measure as well as giving a more complete picture of the effects of activity level and labeling condition on the affect measure.

Orthogonal Comparisons

The data for the affect measure is presented in Figure 3. Increasingly negative values on the ordinate represent an increase in the frequency with which the adults report negative affect.

TABLE 6

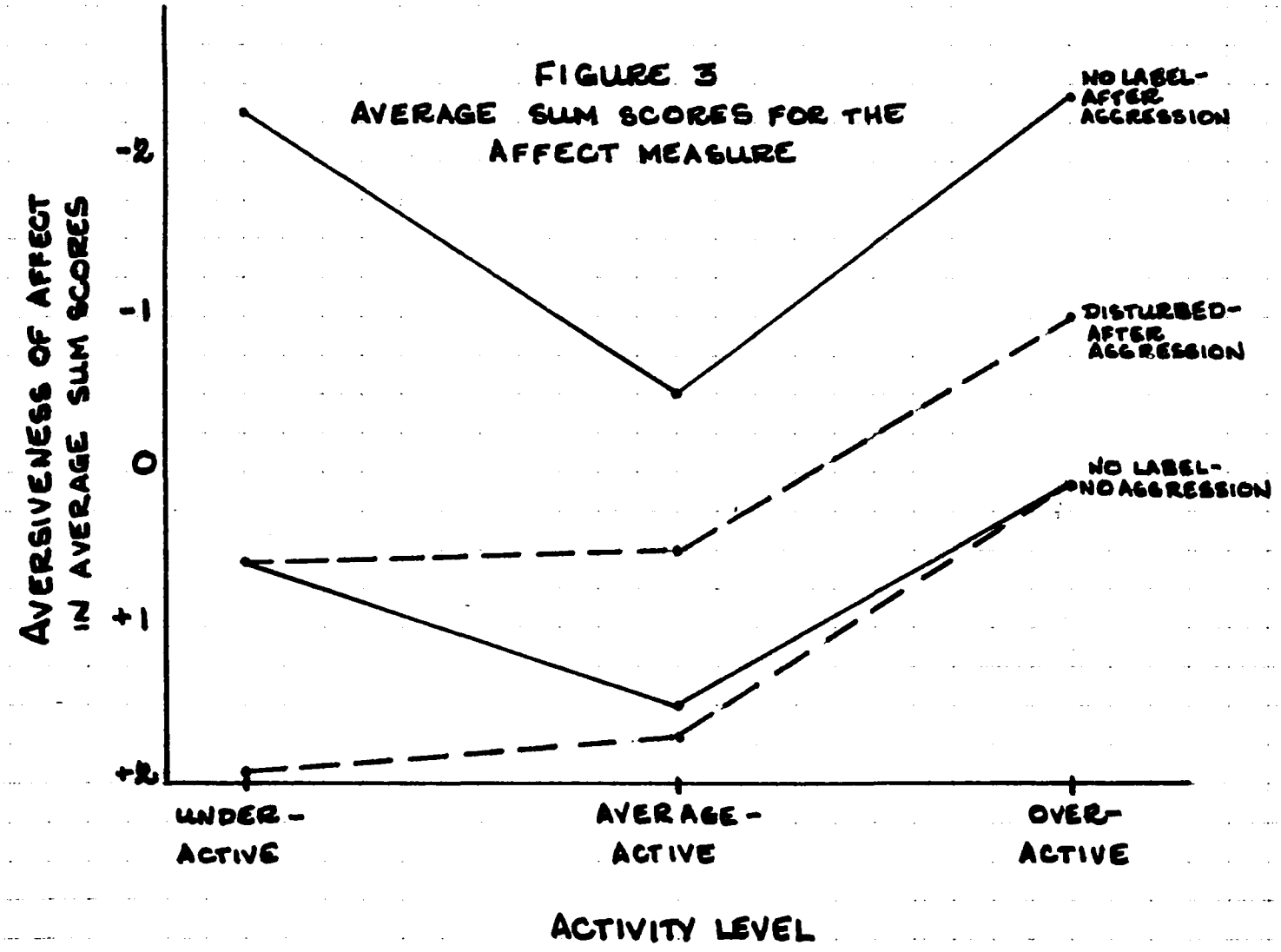
Analysis of Variance
Affect Measure

Source	df	F
Between Subjects	59	
A	1	5.503*
B	2	31.663*
AB	2	2.21
Subjects within groups [error (between)]	54	
Within Subjects	60	
C	1	52.06**
AC	1	2.834
BC	2	2.06
ABC	2	1.01
CxSubjects within groups [error (within)]	54	

*p < .05

**p < .01

FIGURE 3
AVERAGE SUM SCORES FOR THE AFFECT MEASURE



Positive values reflect the frequency of positive reported affect. Again, "No label-after aggression" refers to the average sum score for each activity level in the case where the child is not labeled and the adult has seen the child engage in interpersonal aggression. "Disturbed-after aggression" refers to average sum scores for each activity level in the case where the child has been labeled "disturbed" and the adult has seen the child aggress. The two bottom lines in Figure 3 refer to sum scores for the "No label" and "Disturbed" conditions where the adult has not seen the child engage in aggression.

The level of significance for orthogonal comparisons on the affect data was the same as that chosen for the disciplinary measure, i.e., the .05 level.

Comparisons involving "No label-after aggression" and "Disturbed-after aggression."

In Figure 3, the data presented for "No label-after aggression" appear to reflect a pattern similar to that observed for the disciplinary measure (see Figure 2). Orthogonal comparisons indicate that if the child is not called "disturbed" and does aggress, the overactive child and the underactive child do evoke significantly more aversive affect than the average-active child. However, the pattern in Figure 3 is slightly different from that in Figure 2 because the difference between the overactive and the underactive child is not significant.

The second line in Figure 3 indicates how the adults react

te the same children if they are labeled "emotionally disturbed." As is the case for the disciplinary measure, if the child is called "disturbed," and does aggress, the data for the underactive and average-active child do not differ. However, again, Figure 3 differs slightly from Figure 2 in that the overactive child continues to evoke more aversive affect than the average-active or the underactive child. This could well be a matter of chance. The differences in Figure 3 are often smaller than those in Figure 2.

Now let us look at "No label-after aggression" and "Disturbed-after aggression," point by point rather than in terms of the overall pattern. When we do this, similarities between Figures 2 and 3 again become salient. If the child is called "disturbed," and does aggress, the adults feel less negatively toward the overactive child and the underactive child than they did before the children were labeled. But, as in Figure 2, the feelings of the adult do not change toward the average-active child after he is called "disturbed."

Comparisons involving data taken after no aggression.

If we look at how the adults feel about the children when they have not engaged in any interpersonal aggression, we find that the data in Figure 3 is less easily summarized than that encountered in Figure 2. In particular the data for "No label-no aggression" is complex. If the child is not called "disturbed," and does not aggress, the adults feel significantly more negatively toward the overactive child than the average-active child. They feel the same toward the overactive child and the underactive child,

statistically, but they also feel the same toward the underactive child and the average-active child, statistically. In other words, data for the overactive child equals data for the underactive child, and data for the underactive child equals data for the average-active child, but data for the overactive child does not equal data for the average-active child. It should be noted that any interpretation of such a comparison is very speculative as one is dealing with small differences that were not specifically predicted.

The mean for the "Disturbed-no aggression" condition in Figure 3 is similar to the mean for "Disturbed-no aggression" in Figure 2. If the child is called "disturbed" and does not aggress, the overactive child evokes the most aversive affect, that is, the adult feels significantly more negative toward the overactive child than he does toward the underactive or the average-active child. The data for the underactive child and the average-active child are statistically equal.

If the child is labeled "disturbed" and does not aggress, the adult feels less negatively toward the underactive child than he did before the children were labeled. Labeling makes no difference in how the adult feels about the overactive child or the average-active child. In other words, if the child is not aggressing, the data for the overactive child and the average-active child are the same whether or not he is labeled. In Figure 2, if the child was not aggressing, only the data for the overactive child changed if the child was called "disturbed."

Finally, the main effect of the C variable in Figure 3 is very like that observed in Figure 2. Five of the six data points in the two "No aggression" conditions differ significantly from corresponding points in the "After aggression" conditions. This means the children were evoking less negative affect when they did not aggress than when they did aggress. The only exception to this rule is the data for the overactive child where he is labeled "disturbed." If the overactive child is called "disturbed," the adult feels the same about him whether or not he aggresses. The difference between the sum score for the overactive child who is labeled "disturbed" and aggresses, and the overactive child who is labeled "disturbed" and does not aggress is in the appropriate direction, i.e., the direction indicated by the main effect of the C variable. The difference approaches significance ($p=<.10$), ($t= 1.62$). It is to be expected that in making a number of orthogonal comparisons, some will fall short of the significance level, even when the direction of the difference being tested is predicted by the main effect.

CHAPTER 4

DISCUSSION

Both analysis of variance and orthogonal comparisons support the first major hypothesis: that overactive children are punished more severely than the average-active child. We had originally anticipated that the underactive child would be treated less severely than the average-active child. In fact, the underactive child received more severe treatment than the average-active child in several of the experimental conditions.

The results also support the second major hypothesis: that labeling the child "emotionally disturbed," has a significant effect on the adult's use of discipline. After the children were labeled, the adults began to discipline them less severely. Moreover, the adults began to react to the children as though there were no differences in activity level between them, in the case where the children did aggress.

The data indicate a third important set of findings. The adult's subjective report of affect toward the child is correlated with his choice of disciplinary practice. As the adult's feelings toward the child become more negative, he punishes the child more severely. Activity level and labeling both have significant effects on the adult's feelings toward the child.

In addition to these major effects, there are a number of secondary effects. We shall discuss these under the major headings that correspond to those in the results section.

The Disciplinary Measure

Punishment of the Underactive Child before Labeling

In the introduction, we covered a number of possible reasons why an overactive child may be punished more often and more severely than the average-active child. We did not expect the adults to punish the underactive child more severely than the average-active child. The relevant data may be found in Figure 2. It may be the case that the child who deviates from the norm for activity level in either direction is more likely to be punished severely. Bell (1968) had predicted this. In addition to outlining the possibility of a punitive interaction between parent and child for the overactive child, he suggested that the parents of underactive children may use more demanding, intrusive disciplinary techniques.

Since no adult in this experiment chose to employ corporal punishment, we must confine our discussion to the use of such practices as scolding and removing toys. These kinds of practices can be interpreted as more demanding and intrusive than other practices the adults could choose, and they may be seen as more severe as well. Overactive children may be punished even more severely outside the laboratory than our data indicated. Parents are more likely to use corporal punishment at home. Many adults in this study reported reluctance to spank or slap a child they did not know very well.

The report by Cook (1963) which was also reviewed earlier, might have been used to predict more severe punishment of the

underactive child. Differences in adult responses to different activity levels can be interpreted as responses to a general characteristic, like deviation from the norm. Cook's study showed that as handicapped children deviated further from the norm, their parents became increasingly authoritarian. Perhaps the underactive child is seen by the adult as deviant, and the overactive child as even more deviant.

Again, we can look for reasons why the interaction between the adult and the underactive child becomes more punitive. Bell (1968) emphasizes the possible reinforcement the parent receives for more punitive discipline, i.e., the child is more likely to respond quickly to the parent's wishes.

We said the parent of the overactive child may turn to punitive practices because the child is impulsive and does not attend well. Slow response to parental demands and lack of attention may affect the parent of the underactive child the same way.

Punishment of the Overactive Child before Labeling

The results reported in Figure 2 indicate that under most conditions, the overactive child is punished most severely. Even when this child has committed no specific transgression, i.e., when he does not hit anyone, he is punished more severely than the underactive or the average-active child.

The preliminary data reported in the method section showed that the adults rated the overactive child as more aggressive than the underactive or the average-active child. This occurred

despite E's attempts to control for specific aggressive incidents. The overactive child hits the adult the same number of times as the underactive or the average-active child does. The voice volume and tone of all three children was controlled. The active child never damages or distroys any of the toys. This data suggests that Bandura and Walters (1963) are right when they say that high magnitude responses are most often interpreted as aggressive. The underactive and average-active children were punished very rarely in cases where they did not aggress.

Undoubtedly, part of what has been tested in this experiment is the effect of differences in the amount of aggressiveness the adults judged to exist between children of different activity levels. The adults saw the overactive child as most aggressive as well as most active. We considered the possibility of trying to control for aggressiveness, but we also wanted to paint as realistic a picture of the overactive child as possible. High magnitude responses are part of the definition of overactivity, and high magnitude responses are seen as aggressive.

More evidence that a high level of activity and aggression may be inseparable comes from the work of Osgood, Suci and Tannenbaum (1957) on the semantic differential. These authors report that a scale such as "ferocious-peaceful" has considerable loading on the "activity" factor. This means that much of the meaning of words like "ferocious" and "peaceful" are accounted for by a general dimension of meaning, i.e., "activity."

In defining the meaning of many common scales, Osgood, Suci

and Tannenbaum found that there are three major factors. One of these factors is "activity," and it is associated closely with scales like "fast-slow," "active-passive," and "tense-relaxed." It also accounts for much of the variance of the scale "ferocious-peaceful," and we suggest that a large part of the meaning of "aggressive" is also accounted for by the "activity" factor. This implies that to entirely eliminate differences in "aggression" from this experiment, we must eliminate differences in activity level. It is more reasonable to simply accept perceived aggression as one of the factors contributing to the child's effect on the adult and then to interpret the results of this experiment with this fact in mind. This we shall attempt to do.

The preliminary data also indicated that the overactive child was the least "cheerful." Osgood, Suci and Tannenbaum suggest that much of the meaning of "cheerful" is accounted for by the "evaluative" factor, that is, a factor associated with scales like "good-bad," "pleasure-pain," and "light-dark." We suggest that the overactive child is seen as "bad" in several ways. The "ferocious-peaceful" scale is also loaded on the evaluative factor to some extent. This means "ferocious" is defined by people as "active" and "bad." Cheerlessness is also seen as bad. The overactive child is seen as a "bad" child. We have suggested that the overactive child becomes a frustration and a burden. These may be some of the reasons. The connotations associated with this child's behavior suggest an adult may need assistance in reinterpreting the behavior of the child. The data we have collected

reinforce this suggestion. The overactive child is punished more severely even when he does not hit the adult, when he is "minding his own business," when he is not hitting anyone or destroying anything.

Let us assume that the adult is punishing the child for what he perceives to be "general aggressiveness and bad behavior." So the child is punished for real aggression and perceived aggression. We suggest that what the adult is trying to accomplish is to make the child less aggressive. If this is the case, reinforcement principles suggest that the adult might make the most progress by responding non-punitvely, even rewarding the child, when he is being even slightly less aggressive. In other words, if the adult were to reward the child for periods in which no specific aggression occurs, the child might learn faster. Such a response by the adult could be called a first step in a program of "successive approximation," i.e., gradually increasing the demand for "quiet, non-aggressive" behavior.

What we are suggesting is that if the adult punishes the child for what he perceives to be "generally bad behavior," then he is missing the periods when the child is being relatively good (i.e., when he is committing no specific aggression). The child will find it difficult to learn exactly why he is being punished. If the child is rewarded for even slightly less aggressive periods, the child may appear to the adult to still be "generally aggressive and bad," but the appropriate discrimination should be learned sooner. The child is being punished for "potentially" bad and

aggressive behavior in the present study. Such punishment really complicates the discrimination for the child.

To teach a child, using successive approximation, we slowly increase the amount of time and degree to which we expect the child to be non-aggressive. If we try and wait for the child to be calm and cheerful before we reward him, the child may never make any correct responses, because he is always seen as cheerless and aggressive.

If parents react to their own children the way the adults in this study reacted, the data may indicate a fruitful approach to parent education. First we might show the parent how to reinterpret the child's behavior in terms of activity level instead of aggressiveness and cheerlessness. Then we could encourage the parent to reward even slightly lower activity, and gradually become more demanding.

Now let us return for a moment at this point to some of the theoretical models presented in the introduction. These models all predict that the punitive parent causes a child to become more aggressive. We did not deny the validity of these models in so far as they describe the parent's contribution to the parent-child interaction. After consideration of these models, and the present study, it seems possible that the active child and his parent may become involved, very early, in a "vicious circle" interaction resulting is spiraling aggression and punitiveness. Where does this "circle" begin, and how might it be broken?

There is some evidence to suggest that the relationship

between the parent and the active child may begin to develop badly from the very start. There is a fair amount of literature that suggests that there are very important differences between babies at birth. Studies like these of Moss, Yarrow and Bayley and Schaefer outline some of these differences. Sex difference research (Sears, Maccoby and Levin, 1957, Levine, Fishman and Kagan, 1957) provides further support. More directly, Kessen, Williams and Williams (1961) demonstrated consistent individual differences in motility in the first few days of life. Thomas, et al. (1964) have reported that differences in motility observed at very early ages remain stable over lengthy periods of time. Kagan and Moss (1962) reiterate this point. Finally, a study of identical and fraternal twins by Scarr (1966) showed a moderate degree of hereditability for several aspects of activity level including reaction time, patience, number of activities, vigor, tension and squirming.

So, it is possible that right from the start, the active child is seen as a frustrating burden. He is difficult to control and begins to demand more punitive control very early. When the parent begins to use more severe punishment, the child becomes more aggressive, requiring more punishment, resulting in more aggression, etc. We may be able to break the cycle by helping the parent reinterpret the child's behavior so that he can change the reinforcement contingencies in the interaction.

Of course, this study only suggests what may be happening between the parent and the active child. We have looked at how

adults who have normal children react to "someone else's" active child. This data can not simply be generalized to the target interaction. We must look at the behavior of parents who actually have overactive children. If patterns similar to these observed here emerge, a training program could be of great benefit to both parent and child.

Finally, we must add a word of caution. The emphasis in discussing the overactive child has been on the possible effects of perceived aggression. This emphasis seems reasonable because the overactive child is punished more than the other children even when he displays no specific aggression. However, we must keep in mind that the underactive child is punished more than the average-active child in the case where the children aggress. Simple deviation from the norm may contribute to the severity of punishment for both the overactive and the underactive child. We would have to take this into consideration if we were to help a parent reinterpret his child's behavior. We would have to explain that the overactive or the underactive child may sometimes have to be reinforced for behaviors which might not be acceptible if the child was average-active.

Punishment of the Children after Labeling

After the children had been called "emotionally disturbed," severity of punishment for the overactive and the underactive child decreased. After labeling, the activity level of the child no longer affected the adult's choice of discipline. All three types of children were treated alike. This means that labeling

can be operationally defined as "behavioral context." It affects the adult's response along the same dimensions as a characteristic like activity level.

One of the most interesting aspects of the data taken after the child was labeled is the fact that the average-active child is treated the same whether or not he is labeled. This situation is consistent with a report mentioned earlier. Guskin (1966) demonstrated that too few cues to subnormality in the physical appearance of the child decreased the effect of labeling. The adult does not change his behavior toward the child who looks and acts normal, even if he is labeled "disturbed," for the purposes of the study. There must be a perceptible deviation from the norm to produce a labeling effect. The fact that the preliminary data show that adults found the underactive and the overactive children to be less cheerful than the average-active child, may reflect the fact that these two children were perceived as deviating from the norm.

On the other hand, if the adult does react to the label, he begins to treat the child less severely. He begins to punish the overactive child and the underactive one in much the same way he punishes the average-active child. Labeling changes some of the basic reinforcement contingencies in the child's environment. We have suggested that if these data held true in real parent-child interactions, changing some of the contingencies in the case of the overactive child could be of benefit to both parent and child. But, there is a problem. The effect of labeling

is a general decrease in severity. The child is no longer held responsible for his behavior in the same way he was before the label was applied.

We must consider the long term goals appropriate for the child. Normal children are held responsible for their behavior. If the overactive child or the underactive child is to achieve his potential, he too must be responsible for his behavior to some extent. If a non-specific decrease in punishment takes place when a parent's own child is labeled, such a decrease may not help the child develop along normal lines. The label must be explained. In other words, the child's behavior must be reinterpreted for the parent. The parent should be encouraged to seek the limits of the child's ability to be responsible for himself. If our goal is to encourage the child to develop along normal lines, we should redirect rather than abandon discipline.

The importance of reinterpretation and redirection rather than mere labeling is underlined by the data for the overactive child in the case where he has been labeled and <u>does not</u> aggress. Even in this case, the adult continues to punish the overactive child more severely than the other children.

The Affect Measure

In the results section of this paper, we reported that there was a highly significant positive relationship between disciplinary practices and affect. We also saw that orthogonal comparisons within the affect data paralleled many of the important relation-

ships we found in the disciplinary measure. For instance, we saw that the adult feels more negatively toward the overactive and the underactive children. We noted that the adult continues to feel more negatively toward the overactive child than the other children even though he does not aggress and even though he has been labeled "emotionally disturbed." Yet, it appears that many of the small, but significant differences we found in the disciplinary measure are not found in the affect measure. For instance, in Figure 3, data for the overactive child where the child is not labeled and does not aggress is not different from data for the underactive child in the same condition. We also found that data for the overactive and the underactive children did not differ in Figure 3 where the child is not labeled and does not aggress.

Part of the reason for the absence of some of these differences in Figure 3 may be due to the fact that the adult had fewer response alternatives than for recording discipline. The adult could choose from only three affect responses, but from five disciplinary responses. E allowed more disciplinary responses because this was the area of greater interest, and the button panel allowed a total of eight alternatives. Since adults have only eight fingers, a larger number of responses becomes cumbersome. The affect measure, as a consequence, was less sensitive than the disciplinary measure.

Not only did the experimental set-up restrict the sensitivity of the affect measure, but it can be argued that fine discrimin-

ations along the affect dimension are just basically more difficult for adults. People are not generally required to make fine discriminations about how they feel toward a child. They are, however, required to choose discipline carefully. A correct disciplinary response is likely to have rewarding consequences in terms of the child's behavior. There are few rewards for carefully examining and reporting one's feelings toward a child. This fact probably contributed to some extent to the restriction of sensitivity that was suggested by the data for the affect measure.

Despite the general trend of the affect measure to reflect fewer significant differences than the disciplinary measure, there are two places in Figure 3 where differences do occur that are not apparent in Figure 2. One of these is the difference between the data for the overactive child and the other children where the child is labeled and does aggress. The other is the difference between data for the underactive child and the others where the child is not labeled and does not aggress. Interpretation of the latter effect is quite speculative as it may be very reasonable to attribute such anomalies to chance factors. However, we shall devote some discussion to the case of the overactive child after labeling.

Affect toward the Overactive Child after Labeling

The data in Figure 3 show that the adults feel more negatively toward the overactive child than the other children where the child is labeled and does aggress. It is possible that the crucial effect here was the decrease in aversiveness of affect toward

the less active children. Casual reports from the adults led E to believe that labeling decreased negative affect toward the underactive child after aggression, because, for example, some adults saw any act by this child, even aggression, as a positive sign. The adults may have seen the less active children as withdrawn. Similarly, Bell (1968) suggests that the parents of underactive children may react positively to any increase in behavior. Of course, this kind of speculation requires replication and specific examination in order to increase its credibility.

Preliminary Data and the Affect Measure

Preliminary ratings of aggression and cheerfulness can be interpreted the same way for the affect measure as for the disciplinary measure. The data for the overactive child in Figure 3 reflects the fact that he was perceived as "generally aggressive and cheerless." Adults continued to feel more negatively toward the overactive child in almost every case. Data for the underactive child suggests that the "cheerlessness" reported in the preliminary ratings had some affect on the adult's feelings toward the child. Adults tended to feel more negatively toward the underactive child than the average-active child. However, the underactive child was not seen as "aggressive" and the data show that the adults did not feel as negatively toward the underactive child as the overactive child, especially after labeling. Perhaps the "cheerlessness" of the underactive child was easily interpreted as withdrawl after labeling, while the cheerlessness plus aggression of the overactive child did not lend itself to this

kind of reinterpretation. We are speaking of small differences, but the overall pattern here essentially replicates what we saw in the disciplinary measure.

Summary and Conclusions

The evidence offered in this paper suggests that deviation from the norm for activity level, particularly in the direction of overactivity, is a behavioral context which affects the disciplinary responses of an adult and his feelings toward a child.

The fact that adults continue to punish and feel negatively toward the overactive child even when he is not aggressing and even though he has been labeled, is of special interest. This data leads us to feel that it may be important to look at interactions between parents and overactive children. If the same kinds of patterns emerge as those we found in this study, it may be possible that parent and child are trapped in a circle of interactions which result in spiraling aggressiveness and punitiveness. The child demands more intense forms of control, the parent turns to more severe, aggressive punishment. The child models the parent's aggression and becomes more of a problem. We might be able to break the cycle by helping the parent reinterpret the child's behavior in terms of activity level instead of aggressiveness and cheerlessness. We may then be able to set up a program for gaining control of the child in a less punitive way based upon greater use of reward and more directed use of punishment.

The data show that labeling the child "emotionally disturbed"

has a very large effect on the disciplinary choices and affect of the adult. Labeling is another kind of behavioral context, affecting the adult along the same dimensions as activity level. Labeling generally results in reduced levels of severity in the use of punishment for the underactive and the overactive child. If this finding can be generalized to the responses of parents to their own children, this kind of general, undirected reduction in punishment may not be of much benefit to parent or child. The child is no longer held responsible for his behavior the way normal children are held responsible. We suggest that reinterpretation of the child's behavior and restructuring of the reinforcement contingencies in the parent-child interaction are needed, not a simple, general reduction in the severity of punishment.

A word should be said in closing about the method employed in this experiment. The use of video-taped stimulus materials gave the experimenter a number of advantages. Video-tape allows absolute control over the behavior the experimenter wishes the adult to view. The materials can be rated and reviewed at will. The laboratory procedure is simplified and may be totally automated. The subject feels more at ease in a situation where he knows his responses have no real consequences for the child. Because of the latter, the subject can respond as though the child were his own, or, at least, as though he knew the child well. Generalization from "someone else's" child to "my child" is facilitated.

On the other hand, the fact that an adult's responses have no

consequences for the child results in some difficulty in generalizing the results to the situation outside the laboratory. The adult may use more punishment when there is no scrutiny what-so-ever. Of course, he may also be less severe when the child may actually have to bear the consequences, as is the case outside the laboratory. We can not, therefore, make any simple generalizations about real parent-child interactions without a note of caution.

It may be possible to devise a situation in which the adult can be led to believe his response does affect the child. The subject could be told that the video-taped material is actually closed circuit live television. He could also be informed that his responses would result in mechanically delivered reinforcement for the child. This kind of procedure may give additional information to the experimenter about the effect of feedback from the child's behavior. Feedback from the child's behavior can, of course, be totally controlled. The amount and nature of feedback can be predetermined by E. The problem here is that this kind of procedure presents real difficulties in overcoming a subject's reluctance to respond under scrutiny, especially if the child is not his own.

Caution should be observed in generalizing the results of this study to parent-child interactions where the child is actually overactive. The purpose of the present experiment was to examine an adult's reaction to a child characteristic, or behavioral context, in order to shed some light on certain theoretical questions involving the direction of effects in adult-child

and thus only indirectly, parent-child interactions. Practical recommendations about the specific problems of a child and a parent can be validated only by observation of the interaction of interest. Generalizations from adult-child to parent-child must be carefully evaluated.

Finally, these data can only be said to apply to interpersonal aggression against an adult and some forms of simple play behaviors. The reaction of the adult to other behaviors, behaviors such as aggression against a peer, affection, approval seeking, etc., must be examined separately before any conclusions are reached. The method presented in this paper may easily be accommodated to such investigation.

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APPENDIX A

APPENDIX A

Instructions to the Adults

"The study you are about to participate in is a study of child managment. We are primarily interested in how most people respond to common child behaviors (when they occur in the emotionally disturbed). (The child you will see in the film has been diagnosed 'emotionally disturbed.') We want to know what you think; there are no right or wrong answers. We are merely collecting opinions.

"A very short segment of video-tape will appear on the television monitor. You will see 10 such segments. They are all about 30 seconds long. After each segment there is a 20 second section of blank video-tape, the television will go blank for 20 seconds. During this blank section, you will be recording how you might handle the behavior you have just seen. You will be able to record your reaction simply by pushing one of the buttons in front of you.

"Your choice will be automatically recorded on computer tape. You will be able to hear the tape punch running in the other room. Your name will not be recorded on the tape. All of your responses are completely anonymous.

"Let me explain to you now the meaning of a response on each of the keys. We will be asking you to record both how you would choose to handle the child's behavior and how you feel about the child as you respond to that behavior. We would like you to

react as though you had complete responsibility for the child.

"The meaning of each of the responses is as follows:

a) Button #1: A response on key #1 means you would reward the child by hugging, smiling, kissing, saying something nice like 'Good boy,' 'That's right,' or showing some other form of approval and affection.

b) Button #2: A response on key #2 means you would ignore or withdraw from the child, not speaking to him. You might simply turn and walk away.

c) Button #3: A response on this key means you would take the toys away from the child, perhaps putting them away altogether. You might make the child sit quietly in a chair for a few minutes, not allowing him to play with the toys. You would not talk to him during this period, however, you might offer some brief explanation about what you were doing.

d) Button #4: A response on this key means you would verbally reprimand or scold the child, using phrases like 'That's not nice,' 'Don't do that,' or 'Stop that right now,'

e) Button #5: A response on this key means you would shake, spank or slap the child. That is, you might use some form of mild corperal punishment.

f) The button marked 'plus': A response on this key means you are feeling positively toward the child. The child has pleased you; you like him; you are happy with him.

g) The button marked 'zero': A response on this key means you are feeling neutral toward the child, neither negatively or

positively.

h) The button marked "minus": A response on this key means you are feeling negatively toward the child. He has upset you; you do not like him at this point; you are not pleased with him.

"You may find that sometimes none of the first five responses seems appropriate. You may feel that no special reaction from the adult is called for. You may think that the adult should simply go on acting as he has been toward the child, as though nothing had happened. If you feel this is the case, do not press any of the first five buttons, but simply record how you are feeling about the child.

"During each blank space, then, you will push two keys, one to record how you feel and one to record what you might do. The only exception will be if you feel the adult need make no special response. Then you should simply record your feelings toward the child.

"Now I would like you to press the buttons you feel would be appropriate for each of the situations I am about to describe." (Experimenter chooses five of the below.)

1. You are feeling neutral toward the child and decide to ignore him and walk away.

2. You are feeling negative toward the child and decide to give him approval and affection.

3. You are feeling negative toward the child and decide to take his toys away and ignore him.

4. You are feeling positive toward the child and decide to

give him approval and affection.

5. You are feeling positive toward the child but decide to ignore him and walk away

6. You are feeling negative toward the child and decide to slap or shake him.

7. You are feeling negative toward the child and decide to scold or reprimand him.

8. You are feeling neutral toward the child but decide to take his toys away and ignore him.

9. You are feeling neutral toward the child and decide to give him affection and approval.

10. You are feeling negative toward the child and decide to ignore him and walk away.

11. You are feeling neutral toward the child but decide to reprimand or scold him.

12. You are feeling positively toward the child but decide to reprimand or scold him.

13. You are feeling positively toward the child but decide to shake or slap him.

14. You are feeling neutral toward the child but decide to take his toys away and ignore him.

(Experimenter chooses one of the following)

1. You are feeling positively but you feel no special response by the adult is necessary.

2. You are feeling negatively but you feel no special response by the adult is necessary.

3. You are feeling neutral but you feel no special response by the adult is necessary.

"We would like you to respond as quickly and honestly as possible as soon as the blank space appears. Remember, you will see 30 seconds or so of film, then a 20 second blank space. You will see 10 segments of film all together, and, therefore, 10 blank spaces, so you will be asked to respond 10 times. Please hold down your keys for 2 or 3 seconds each time to make sure your response is recorded.

"I will remain in the adjoining room while the tape is running. The intercom system you see will enable me to know when the videotape is finished. When I say 'begin' please push down all the buttons at once and hold them down until you can see the picture on the screen clearly. When you do see it clearly, please release all the keys and begin watching the film. Finally, remember, you are to respond as though you had complete responsibility for the child. I would also like to point out that the behavior you are about to see is 'typical' of this child. In other words, the film will give you a good idea of how this child responds to this situation all the time.

(E begins film and leaves room, reentering when the film is finished.)

"Before you leave, I would like you to do one more thing. On this piece of paper, please rate how aversive you feel each of the responses you had to choose from was. Please do this by listing the number of the button designating the appropriate response in an order which reflects how harshly you think it might affect the

child. If you thought button #1 was the least severe, you would list it first, then list the number of the next least severe. The last number you list would be the reaction you consider the most severe.

"When you are finished, drop the paper in this box and you are free to go. Thank-you very much for your cooperation."

APPENDIX B

MEANS AND STANDARD DEVIATIONS FOR EACH ACTIVITY LEVEL AND LABELING CONDITION, DISCIPLINARY MEASURE

Labeling Condition	Aggression or No Aggression	Activity Level	Mean	Standard Deviation
No Label	Aggression	Overactive	-7.6	3.90
		Average-Active	-3.8	4.18
		Underactive	-5.5	3.4
	No Aggression	Overactive	-4.3	3.55
		Average-Active	0.4	0.89
		Underactive	0.0	1.61
"Disturbed"	Aggression	Overactive	-4.7	2.39
		Average-Active	-3.9	3.36
		Underactive	-3.3	2.00
	No Aggression	Overactive	-2.3	3.30
		Average-c Active	1.6	1.43
		Underactive	1.4	1.91

MEANS AND STANDARD DEVIATIONS FOR EACH ACTIVITY LEVEL AND LABELING CONDITION, AFFECT MEASURE

Labeling Condition	Aggression or No Aggression	Activity Level	Mean	Standard Deviation
No Label	Aggression	Overactive	-2.3	2.28
		Average-Active	-0.5	2.25
		Underactive	-2.4	1.80
	No Aggression	Overactive	0.1	1.37
		Average-Active	1.5	1.86
		Underactive	0.6	0.8
"Disturbed"	Aggression	Overactive	-1.0	1.26
		Average-Active	-0.6	0.58
		Underactive	-0.6	2.3
	No Aggression	Overactive	0.1	2.11
		Average-Active	1.7	1.42
		Underactive	1.9	1.97